
Xanadu Light: Xploded Open Format

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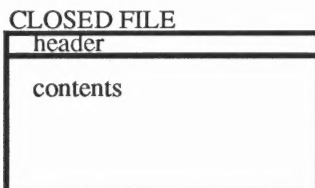
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CLOSED FILES

Computer file formats are usually closed and encapsulated,
expecting to be modified only by controlled programs.

The system's creators expect that complete information packages
will be created and maintained by their applications, and

- no use will be made of the material except through these
specific applications;
- the contents are assumed to be unified and inviolable, and
are sealed within the file;
- the integrity of the data's interrelationships is assumed to
be assured by the file's closure.



Examples are SGML, Microsoft Word, etc., and more recently
HTML, used by World Wide Web.

While we recognize and appreciate the intentions of these other
designs, this closed encapsulation is precisely what is unacceptable
to us about these other formats.

XANADU OPEN STRUCTURES

In the Xanadu system, however, we make the opposite assumption:
by common agreement, all published material becomes available

boilerplate for other use (but with royalty and credit to the originators).

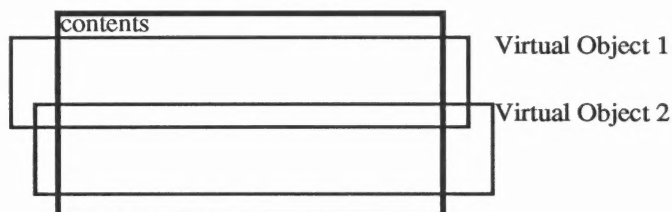
All material may thus be re-used freely, sampled and quoted and marked up in an unpredictable variety of ways, by an unpredictable variety of authors and in an unpredictable variety of new contexts. Thus all parts must be separately accessible and addressable for such re-use.

However, we are equally concerned for the integrity of the material: the integrity both of its original structure *and* of its re-uses.

VIRTUAL DOCUMENTS AND OBJECTS

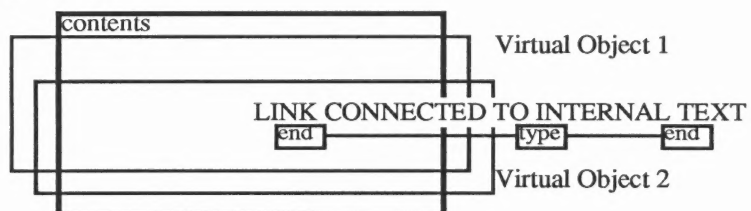
All units are virtual, and so the exact form of storage is a design choice. (We usually call a unit or object a "document," for sentimental and religious reasons.)

VIRTUAL DOCUMENTS SHARING CONTENTS



However, maintaining the integrity of these separate uses and structures is vital. Each virtual document has its specific name and owner, meaning the owner of that organization of the material. The contents may be owned by others.

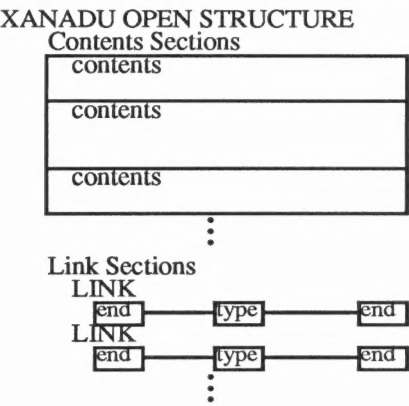
VIRTUAL DOCUMENTS SHARING CONTENTS AND LINKS



XPLODED OPEN FORMAT

Thus we need what we are calling Xploded Open Format, which will allow outside access of all parts to calling applications.

XANADU OPEN STRUCTURE



DETAILS

THE VIRTUAL ADDRESS SPACE

There is a linear address space simply in order to have addressability. This makes no assumption about the structures. Linear addressing of the virtual document is merely for convenience; we do not assume that presentation will be linear.

SEGMENTS

Segments are portions which are stored together and have a common ownership, sponsorship and royalty rate. Each segment has a particular starting position and length within the document's linear address space.

TEXT SEGMENTS

A text segment is a segment of raw ASCII, without formatting. The formatting is handled as links, so that

- the addressing is true content addressing, and not formatting
- the text can be reformatted differently in other uses
- it can be scanned by arbitrary programs without bumping into embedded codes

(GRAPHIC SEGMENTS, VIDEO SEGMENTS ...)

Graphic segments, video segments, etc., can be defined later.

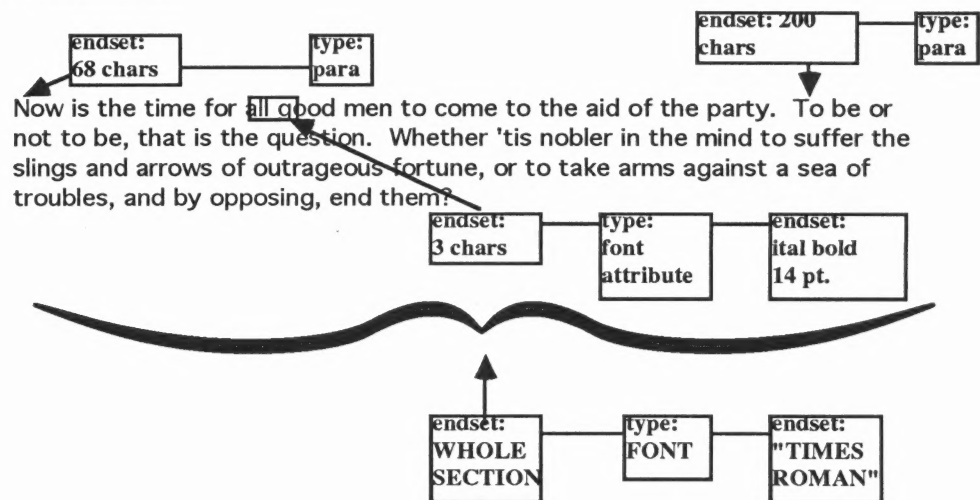
FULL TEXT FORMATTING

Full text formatting includes marker links, which are stored with links.

LINKS AND MARKERS

Links are connectors between parts of documents. They connect two places but also have a type.

Links may be used as connectors and as markers.

TEXT MARKERS**DISPLAYED RESULT OF TEXT MARKERS**

Now is the time for **all** good men to come to the aid of the party. To be or not to be, that is the question.

Whether 'tis nobler in the mind to suffer the slings and arrows of outrageous fortune, or to take arms against a sea of troubles, and by opposing, end them?

(NOT YET A DISK OR TRANSMISSION FORMAT)

Generally format names refer to disk or transmission formats, and not to open structures lying around in databases. However, that's how we're thinking of it for now.

THE NAME: XPLODED OPEN FORMAT

Note that while the designation begins with X, the "X" does not stand for "Xanadu," and we are proposing this as a general approach.